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State of Utah

DEPARTMENT OF NATURAL RESOURCES

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April 6, 2011

Vicky Miller/Wendell Kootz Ark Land Company C/o Canyon Fuels Company P.O. Box 1029 Wellington, Utah 84542

Subject:

Minor Coal Exploration, Ark Land Company, C/007/0039, Task ID #3801,

Outgoing File

Dear Ms. Miller and Mr. Kootz:

The above-referenced Minor Exploration Notice of Intent has been reviewed as of April 6, 2011. Please have a copy of the Notice of Intent at the exploration site upon inspection.

There are several recommendations that would be helpful to you and the Division.

- 1) The Applicant should provide MSDS sheets for the drilling fluids, chemicals or other products used in drilling.
 - 2) The Applicant should dispose of all excess cores at the Dugout waste rock site.
- 3) The Applicant should meet the necessary requirements from Division of Water Rights.

If you have any questions, please feel free to call me at (801) 538-5325 or Stephen J. Demczak at (435) 613-3732.

Sincerely,

Daron R. Haddock

Coal Program Manager

DRH/SJD/ss cc: Price Field Office

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State of Utah



Coal Regulatory Program

Dugout Canyon Mine
Notice of Intent to Conduct Minor Coal Exploration
C/007/0039
Task ID # 3801
Minor Exploration Analysis and Findings
April 6, 2011

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EXPLORATION TECHNICAL ANALYSIS

INTRODUCTION

On March 23, 2009, Ark Land Company (Applicant), an Arch Coal Inc. subsidiary, submitted a Notice of Intent (NOI) to Conduct Minor Coal Exploration to the Division on behalf of Canyon Fuel Company LLC Dugout Canyon Mine.

The minor coal exploration will consist of four drill holes planned for 2011 within the Dugout Canyon Mine Permit Boundary and on private surface owned by Canyon Fuel Company and the coal will be leased through Utah State Coal Lease (ML-42648).

The exploration area is located north of the Dugout Canyon Mine. The Applicant will access the exploration sites using the Soldier Creek County road and turning on to the Pine Canyon Road. This is 1.5 miles past the Soldier Creek mine. A second access will be the Dugout Canyon Road.

The drill core will be obtained to determine coal seam thickness and associated strata. The applicant will use rubber tire drilling equipment for the minor exploration project. The coal recovery will be less than 250 tons of coal.

COAL EXPLORATION

COAL EXPLORATION

Regulatory Reference: R645-200.

SCOPE AND RESPONSIBILITIES

Regulatory Reference: 30 CFR 772.1; 30 CFR 772.10; 30 CFR 772.11; R645-100-400; R645-200-100; R645-200-200; R645-201-100.

Analysis:

Ark Land Company has proposed to conduct minor exploration by drilling four drill holes on Lease ML-42648 in the year 2011.

The Applicant has committed to comply with the requirements of R645-200 through R645-203.

This minor coal exploration will be conducted on Utah State Coal Lease ML-42648 and the Canyon Fuel Company is the surface landowner; therefore, 43 CFR Part 3480-3487 does not apply.

Findings:

The Applicant has met the minimum requirements of this section.

REQUIREMENTS FOR NOTICE OF INTENTION TO CONDUCT MINOR COAL EXPLORATION

Regulatory Reference: 30 CFR 772.10; 30 CFR 772.11; R645-100-412; R645-201-200.

Analysis:

Coal Rule R645-201-221 requires the applicant to give name, address, and telephone number of the applicant's representatives, who will be present at and responsible for conducting the exploration operations. This information has been submitted in the Notice of Intent, Page 3.

R645-100-400, R645-200-100, R645-200-200, and R645-201-100; Ark Land Company has given a Notice of Intention to Conduct Minor Coal Exploration with a narrative and maps describing the exploration area and indicating where the exploration will occur. This information is on Page 4 and Figures 1&2 of the Letter of Intent.

The Applicant will use rubber tire equipment on existing roads to gain access to the drill site.

The minor exploration project is scheduled to start in mid July 2011 and be completed by November 30, 2011.

Findings:

The Applicant has met the minimum requirements of this section.

COMPLIANCE DUTIES

Regulatory Reference: 30 CFR 772.13; R645-202.

Analysis:

The Applicant stated that a copy of the Notice of Intent to Conduct Minor Coal Exploration would be available for review by an authorized representative of the Division upon request.

Findings:

The Applicant has met the minimum requirements of this section in the R645 Coal Rules.

OPERATIONAL STANDARDS

Regulatory Reference: 30 CFR 772.13; R645-202-100.

Analysis:

Biology

Page 5 of the application refers the reviewer to Appendix B titled "Vegetation & Sensitive Species of Drill Sites". According to the survey preformed by Pat Collins of Mt. Nebo Scientific, EXP-03 and EXP -04 consisted of Mtn. Brush/Sagebrush/Snowberry. EXP-01 and EXP-02 were pre-disturbed either by logging, road building or heavy grazing. Sensitive species surveys were conducted at each proposed drill pad and access road. No threatened, endangered or candidate species, plant or animal were observed at the drill sites.

COAL EXPLORATION

The Applicant had Mt. Nebo Scientific do a "Raptor Monitoring Survey for the Dugout Canyon Mine" in 2010. There is an active golden eagle nest 1/10 of a mile from EXP-01 and an inactive nest since 2005 at 3/4 of mile from EXP-02.

The Applicant has stated that exploration will be post-July15 and this would eliminate the sites from the wildlife exclusionary period.

Bat surveys were conducted in the past with no bats in the area.

Mexican Spotted Owl survey was conducted with no Mexican Spotted owl in the area. Mexican Spotted Owls are not found in the Bookcliffs

HISTORIC AND ARCHEOLOGICAL RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.12; R645-301-411.

Analysis:

Cultural Resources - The Applicant has had several cultural surveys completed in this area. There are no indications of cultural or paleontological resources in the proposed exploration area.

Roads

The Applicant will access the site by using County roads and alternative route using County and Dugout mine road. A road will be constructed having a length of 1200 feet and 20 feet wide for EXP-04. A road will be extended 300 feet for EXP-02. There is a possibility of grading and minor repair of other roads. The Applicant will reclaim all roads which were constructed.

Topsoil

Topsoil will be saved and used in reclamation.

Diversions of Overland flows and streams

The Applicant has indicated that no diversions of overland flows, ephemeral, perennial, or intermittent streams will be made in association with the exploration drill hole and that no adverse impact will occur to the stream channel during water pumping activities. Water for drilling will come from Dugout Canyon Mine's fire water tanks and stock water ponds. Waterlines will be used along the road to convey the water.

Hydrologic Balance

The applicant stated that a berm from one and a half to three feet high would be installed around the drill pad. The pad will be constructed so that fluids will flow towards the mud pit. If the explorations drill sites are adjacent to an ephemeral or perennial drainage the pit and pad slope will be opposite the drainage, and the berm will be three feet tall and the pit will be lined.

The applicant may have to apply for a Temporary Change of Water to the Utah Division of Water Rights.

Acid- or toxic forming materials

The Applicant indicated that excess drill cores exhibiting acid potential would be either taken to the waste rock site or buried beneath four feet of cover.

Findings:

The Applicant may need to file the necessary extension with the Division of Water Rights showing that the water rights applications are valid while drilling and water pumping is occurring.

The Applicant should provide MSDS sheets for the drilling fluids, chemicals or other products used in drilling. The Applicant should dispose of all excess cores at the Dugout waste rock site.

The applicant has met the minimum requirements of this section.

RECLAMATION STANDARDS

Regulatory Reference: 30 CFR 772.13; R645-202-200.

Analysis:

Approximate original contour

The Applicant has stated the drill pad will be reclaimed to approximate original contour.

Revegetation

COAL EXPLORATION

The application includes a seed mix to be used in reclamation of the drill sites as outlined on page 10 of the application.

Findings:

The information provided is adequate to meet the requirements of this section of the regulations.

Borehole

The Applicant will plug the coal seam with cement and the hole above the coal zone will be backfilled with bentonite chips/slurry to the full depth. Casing will be removed when possible. If removing of casing is not possible; it will be cut off flush with the ground.

Facilities and Equipment

The applicant has stated that waterlines will remain for future possible future drilling projects. There should be deadlines in which the Applicant should remove these waterlines.

Findings:

The applicant has met the minimum requirement in this section.

PUBLIC AVAILABILITY OF INFORMATION

Regulatory Reference: 30 CFR 772.15; R645-203.

Analysis:

The Applicant has stated their desire that coal seam thickness and coal quality be kept confidential.

Findings:

The applicant has met the minimum requirements of this section.